

Sustainable Infrastructure for Urban Ecology

Chicago Department of Transportation, Illinois, *Total Cost*: \$147,608, *FHWA Share*: \$73,281

Period of Performance: 27 months, *Dates*: August 22, 2008 – November 21, 2010*

AOTR: Kevin Moody; *Grant Project Website*: <http://egov.cityofchicago.org/city/webportal/home.do>

Project Goals

The Chicago Department of Transportation (CDOT) Eco-Logical grant project is part of a larger undertaking to construct a sustainable streetscape demonstration project using Leadership in Energy and Environmental Design (LEED) principles.

Project Activities

The CDOT project team made significant progress in the outreach element of its grant, which includes:

- A draft of an educational handbook;
- Information kiosks that teach the public about sustainable street design; and
- A sustainable design manual, which outlines the sustainable design goals of the CDOT project, explains whether the project achieved each goal, and assesses the streetscape construction process.

Over the past year, CDOT has also furthered its partnership with the Benito Juarez High School, located on the project corridor, by integrating the *Eco-Logical* project into the school's science and architecture curricula. CDOT plans to involve students in future monitoring of the project site.

Key Accomplishments

Among CDOT's successes is an important partnership with the Center for Neighborhood Technology aimed at improving project outreach and communication. A major accomplishment of this partnership was a day-long summit that convened municipal governments, NGOs, and local and Federal agencies to learn about and discuss the creation of sustainable infrastructure.

The workshop positioned CDOT to serve as a clearinghouse of sustainable street information for municipalities across the region. This workshop also helped CDOT foster new relationships with environmental agencies, especially the EPA Region 5, which plans to use CDOT's workshop as a model to create a similar workshop for student engineers.

Challenges

The most notable challenge CDOT has encountered thus far was an initial delay caused by a major change in the subcontractor. As a result, construction of the actual streetscape interventions will take place later than planned, from spring through fall of 2010. The sustainable design manual will not be finalized until after the construction elements of the project are complete.

Due to the nature of the bidding process for construction projects in Chicago, potential contractors are given incentives to adopt the least expensive approach rather than the most sustainable approach. CDOT may need to obtain a city ordinance to defend the legality of selecting a contractor by sustainable intentions rather than cost. As an urban-based project addressing a micro-scale, CDOT also faces street-scale environmental challenges that set it apart from other *Eco-Logical* projects, such as drainage and lighting. While urban and rural projects may be the same in spirit, the *Eco-Logical* approach may need to be applied differently in varied settings and scales.

Future Steps

CDOT hopes that the demonstration project with the accompanying design manual and outreach materials will help future project managers in the region look for opportunities to incorporate green infrastructure into their transportation projects.



Figure: An example of new CDOT streetscape banner.